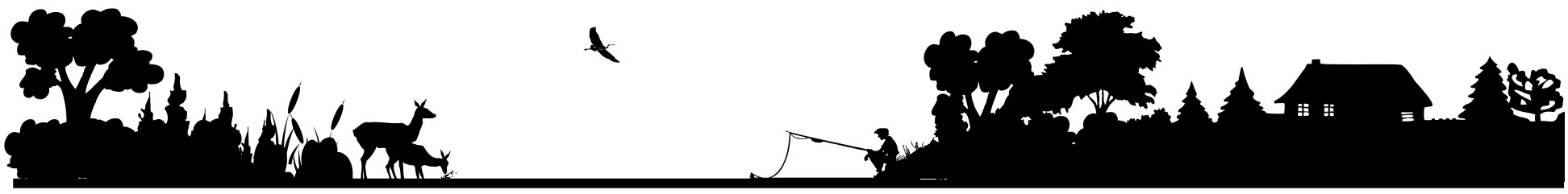
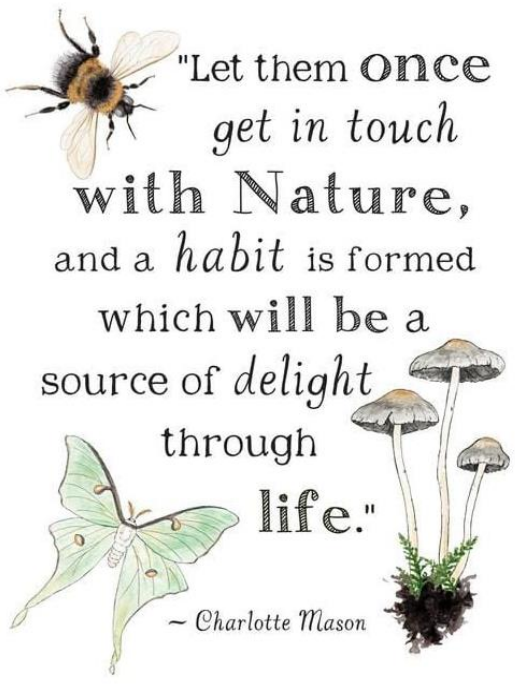


NORTHWOODS JOURNAL – AUGUST 2021

A Free Publication about Enjoying and Protecting Marinette County's Outdoor Life

In This Issue:



State Natural Areas Celebrate 70 Years of Saving Wisconsin's Treasured Landscapes

https://dnr.wisconsin.gov/newsroom/release/44911

Seagull Bar State Natural Area, by Red Arrow Park in Marinette

This year marks the 70th anniversary of the Wisconsin Department of Natural Resources (DNR)'s **State Natural Areas (SNA) Program**.

Wisconsin currently has nearly 700 State Natural Areas that safeguard our state's best remaining prairies, forests, wetlands and geological wonders, and provide some of the last refuges for rare plants and animals.

Marinette County has 12 SNAs; neighboring Oconto County 24; Forest County 18; and Florence County 13. Visit https://dnr.wisconsin.gov/topic/Lands/NaturalAreas/county.html for a complete list of Wisconsin's SNAs by County.

Town Corners Cedars SNA near Amberg

To help celebrate the milestone, the DNR is offering new opportunities for people to preserve, protect and appreciate Wisconsin's best remaining prairies, forests, wetlands and geological wonders. Visit the DNR's State Natural Areas webpage for a list of new features and to find a State Natural Area near you.

"Wisconsinites are very fortunate conservationists at the time had the foresight and commitment to save our natural heritage for future generations," said Drew Feldkirchner, DNR Natural Heritage Conservation Director. "The DNR, partner organizations and volunteers have worked hard over the past 70 years to identify, acquire and protect these areas. We invite Wisconsinites to learn more about what makes these places special and to help us care for them."

The Wisconsin Legislature created the SNA program in November 1951, responding to concerns expressed by Wisconsin conservationist Aldo Leopold and botanist John Curtis and others that Wisconsin's distinct "natural communities" – discrete groupings defined by the soils, geology, plants and animals that evolved together to form different types of grasslands, wetlands and forests – were fast disappearing.

The goal of the program was to as nearly as possible represent the wealth and variety of Wisconsin's native landscape for education, scientific research and for the long-term protection of Wisconsin's biological diversity for future generations.

Marinette County Beech Forest SNA near Silver Cliff

Wisconsin has more than 100 different natural communities, and many of them are globally rare, like tall grass prairie, pine barrens and oak savanna. More than 230 animal and plant species are listed endangered or threatened in Wisconsin, and 90% of those plant species and 75% of the wildlife species are preserved on State Natural Areas.

Parfrey's Glen was designated the first State Natural Area in 1952, and the program has since grown to include sites owned by more than 50 partners. The U.S. Forest Service, The Nature Conservancy and The Prairie Enthusiasts are among the partners.

Nearly all SNAs are open to the public for hiking, hunting, bird-watching, nature study and photography but most are largely undeveloped. They do not have trails, restrooms or other amenities because the primary purpose of these public lands is to protect the natural communities they encompass. Visitors are asked to enjoy these ecologically sensitive sites responsibly.

Undeveloped doesn't mean unmanaged, however. Increasingly, the DNR must take a hands-on approach to these native habitats. The state is divided into nine districts – each with an ecologist responsible for managing state-owned sites in their region and working with small crews to help detect and control invasive species, conduct prescribed burns, collect and plant native seeds and cut unwanted brush. Volunteers operating through the State Natural Areas Volunteer Program are helping supplement staff work at about three dozen sites.

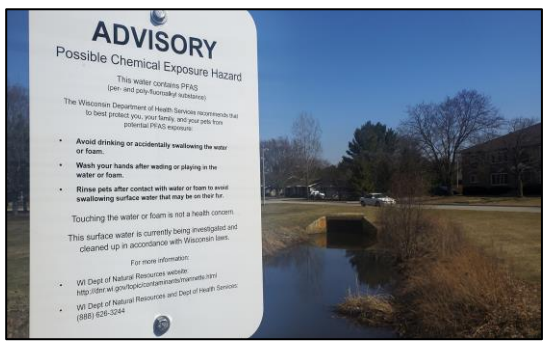
Continued next page

Great Lakes PFAs Action Network

https://www.glpan.org/

Gov. Tony Evers declared 2019 the Year of Clean Drinking Water. As part of the statewide initiative to ensure Wisconsinites have access to clean, safe drinking water, Gov. Evers signed Executive Order #40 in August 2019 to address the issue of PFAS (per- and polyfluoroalkyl substances) in Wisconsin.

Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are a large group of human-made chemicals that have been used in industry and consumer products worldwide since the 1950s. PFAS do not occur naturally and are widespread in the environment. They are found in people, wildlife and fish all over the world. Some PFAS can stay in peoples' bodies a long time and do not break down easily in the environment.



PFAS contamination has been detected in the Marinette and Peshtigo area in soil, sediment, groundwater, surface water, private drinking water wells and biosolids.

Executive Order #40 directed the DNR to create the PFAS Coordinating Council (now known as the Wisconsin PFAS Action Council, or WisPAC) in partnership with other state agencies. WisPac has developed statewide initiatives to address growing public health and environmental concerns regarding certain PFAS substances. These initiatives are part of a statewide PFAS Action Plan.

Michigan, our northern neighbor who shares waterways with Marinette County, also has formed a citizens' alliance to help fight PFAs pollution – ***the Great Lakes PFAs Action Network***. The Great Lakes PFAS Action Network is a coalition centered and driven by people impacted by toxic PFAS pollution.

GLPAN harnesses the collective resources, perspectives and expertise in PFAS impacted-communities, and fuses it with organizations' own resources and expertise. Together, we work to educate decision-makers at the state and federal level, secure funding for large-scale cleanup, and ensure accountability for swift, comprehensive and equitable solutions to PFAS contamination for people across the Great Lakes region. PFAS contamination has impacted communities across the Great Lakes region.

Over the past decade, it has become increasingly clear that a dangerous class of chemicals called PFAS - which are used in everything from furniture, clothing and cookware to food packaging, child car seats and fire-fighting foam - is responsible for serious health impacts to people and wildlife.

PFAS have been found at alarming concentrations in drinking water, surface water, biosolids, and people across the Great Lakes region. Michigan has done extensive testing of municipal and well water drinking systems, and has made some progress in cleaning up and addressing PFAS, but there is still a long way to go in fighting these forever chemicals.

Concerns with PFAS have been brought to the forefront of the environmental and conservation movement, thanks in large part to the advocacy of affected residents living in communities highly impacted by these toxic chemicals.

PFAS contamination may be in food, drinking water, indoor dust, some consumer products and workplaces.

In EPA's health advisory documents for PFOS and PFOA, EPA reviewed the research pertaining to the sources of PFAS exposure. They concluded that diet is the major contributor of exposure to PFAS compounds, with drinking water and/or dust being additional exposure sources.

The Wisconsin Department of Health Services (DHS) [exit DNR] has additional information on PFAS, and the U.S. Environmental Protection Agency [exit DNR] and the Agency for Toxic Substances and Disease Registry [exit DNR] also provide additional health information on PFAS, including PFAS investigation and remediation efforts by other states. More information is available on the Consumption Advisories and PFAS page.

PFAS accumulation in wildlife is an emerging area of interest and little is known about the possible effects of PFAS accumulation in wild animals and fish. PFAS is known to accumulate in exposed animals. In other examples of environmental chemicals that accumulate in the food chain, fish are a known and important source of exposure to humans. Studies of the association between fish consumption and PFAS accumulation in humans provide evidence that fish are an important exposure source with this class of chemicals as well (https://dnr.wisconsin.gov/topic/PFAS/Impacts.html).

For more information, visit https://dnr.wisconsin.gov/topic/PFAS.

State Natural Areas, continued

It takes work to maintain these important places, and much has changed in the last 70 years. In recent decades these places have experienced many new invasive species, a changing climate, white-tailed deer browse, encroaching development and other human-caused stressors that threaten their ecological values.

A soon-to-be-released strategic plan will establish the framework for maintaining the viability of SNAs into the future.

The DNR restoration and protection of SNAs are funded through grants, along with private donations to the Wisconsin Endangered Resources Fund. The Natural Resources Foundation of Wisconsin also provides important funding to support many SNAs.

More information about Wisconsin's State Natural Areas is now available:

- The summer issue of the Wisconsin Natural Resources magazine examines the system 70 years after its creation by the state legislature and as climate change, invasive species, development and other threats challenge the sites.

- A new bi-weekly feature highlighting State Natural Areas to visit and help care for, including opportunities to join in on a volunteer workday, begins June 22. Sign up now for the SNA Spotlight.
- New interactive online features showcase several sites and the plants and animals they harbor. Use these features and their interactive maps to help plan a visit to State Natural Areas to enjoy a short paddle, find a wild experience within a state park or explore the diverse landscapes along the Lower Wisconsin State Riverway.
- View unprecedented video from the air and ground of 12 State Natural Areas in Wisconsin in the 2021 PBS Wisconsin documentary, Wisconsin's Scenic Treasures: Southern Vistas.
- Volunteer workdays resumed in May at many State Natural Areas. No experience or special equipment is needed. See coming workdays near you.

Cathedral Pines SNA in Oconto County

New UW-Madison Extension Master Gardener Volunteers Sought to Assist Local Gardeners

Scott Reuss, Agriculture and Horticulture Agent - Extension Marinette County

Marinette and Oconto Counties are accepting new UW-Madison Extension Master Gardener Volunteers in 2022. If you are interested in learning more about horticulture while helping fellow area residents, the Master Gardener Volunteer program may be a good fit for you.

There are multiple ways to learn more about the MGV program and how it works locally. You can contact Scott Reuss, Agriculture/Horticulture Agent in the two counties, at either scott.reuss@wisc.edu or 715-732-7510. You can attend a MGV Open House being held at the Harmony Arboretum Demonstration Gardens the evening of Thursday, September 2nd. You can also contact a member of the Northern Lights MGV Association, made up of MGV's residing in Marinette, Oconto, and Menominee Counties.

If you decide that the MGV program is right for you, the next step is to enroll in the online course *"Foundations in Horticulture-Growing and Caring for Plants in Wisconsin".* This twelve-part course includes online videos, readings, interactive quizzes and scheduled live Q&A webinars with UW Madison horticulture experts to give participants the best information on improving their gardening skills. This virtual class is designed to be self-paced so participants can fit it into their schedules. The course opens September 13 and runs through December 11. This online class is open to all residents of Wisconsin. Class size is limited to 500 participants and registration closes August 13 or when the class is full. The registration fee is $299.

Foundations in Horticulture (FIH) teaches participants university research-based methods to successfully grow their plants and manage common pests. The course introduces a decision-making framework that focuses on understanding how plants best grow, why pests and problems happen, and how to keep plant problems from happening. It emphasizes using brain power, common sense, and elbow grease rather than the spray bottle on plants grown inside and out. You really can have healthy plants and a healthy planet at the same time.

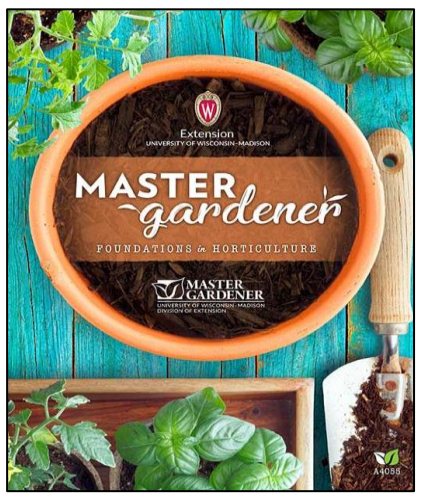
Northwoods Journal Online

Want to read issues of the *Northwoods Journal* online? Go to www.marinettecounty.com and search for 'Northwoods Journal". We can also send you an e-mail reminder when each new issue is posted online, or you can get a copy mailed to you. Contact Anne Bartels, Information & Education Specialist at 715-732-7784 or email abartels@marinettecounty.com.

The FIH course is divided into three units. The first set of topics are the basics: general gardening, botany, soils and decision-making strategies for pest management. The next set of topics helps participants understand how to identify and manage pests they might encounter. Finally, the last group focuses on specific types of gardening such as vegetables, fruits, lawn and houseplants.

As part of the learning experience, FIH participants will have the opportunity to ask questions of UW-Madison horticulture experts at live Q &A webinars. The webinars are scheduled so that each expert will be taking questions about the material currently being covered. The webinars are also an opportunity to ask questions participants may have long had but did not know whom to ask. Q & A with the Experts will be recorded for future viewing in case the live broadcasts are inconvenient with participants' schedules.

In addition to the Q & A with the Experts, participants receive a complete electronic (PDF) copy of the *Foundations in Horticulture* training manual. A bound hardcopy of the manual is available at an additional cost. This is a valuable reference tool to have on the bookshelf.



Participants will receive a certificate of completion and earn up to four continuing education credits (CEU) for certain professional organizations. For participants wanting a deeper dive into the learning experience, there are optional live lab webinars to reinforce the material covered in the course. These give participants the opportunity to work in large and small groups with Extension educators to answer more in-depth gardening scenarios.

Whether you are a beginner, avid gardener or professional, you and your plants will benefit from this course. For more information and to register for the course, visit https://hort.extension.wisc.edu/foundations-in-horticulture/. For more information on the Master Gardener Volunteer Program, visit the main website at https://mastergardener.extension.wisc.edu/.

Lifejacket Loaner station at Lake Noquebay Park

Community members of Safe Kids Marinette County, in partnership with the Wisconsin Department of Natural Resources, have announced the start of the "Kids Don't Float" Life Jacket Loaner Program.

Safe Kids Marinette County is a local coalition that works to prevent unintentional injuries and deaths among children and youth.

In July 2016, life jacket loaner station stations were placed at two separate boat landings in Marinette County. The first life jacket loaner station was placed at the boat landing on Boat Landing Road on Lake Noquebay in the Town of Middle Inlet.

The second life jacket loaner station was placed at the Stephenson Park Ramp at the High Falls Reservoir on the Peshtigo River in the Town of Stephenson.

These life jacket loaner stations contain life jackets for children and adults as well as throwable personal floatation devices (PFD) for anyone to borrow before they launch their boat. Life jackets and PFDs can be used for the day at no cost. People are simply asked to hang the wet life jackets on hooks provided before they leave. The life jacket loaner stations were built by the Peshtigo Tech Ed class along with assistance from Marinette County Work Restitution program participants.

Local community members have volunteered their time to monitor the stations. Safe Kids Marinette County and the WI DNR expressed their appreciation to the Town of Middle Inlet, the Town of Stephenson, Peshtigo Tech Ed class, Marinette County Work Restitution participants, and other anonymous donors that have helped to make this program possible.

If you have questions about this program, contact Marinette County Public Health at 715-732-7670. To learn more about what types of life jackets are required when boating, go to dnr.wi.gov/topic/boat/pfd.html, or visit https://dnr.wisconsin.gov/Topic/Boat/LifeJackets.

Article above is from https://www.ironmountaindailynews.com/news/local-news/2016/08/marinette-launches-life-jacket-program/

Clean Boats, Clean Waters Program in Wisconsin

https://www.uwsp.edu/cnr-ap/UWEXLakes/Pages/programs/cbcw/default.aspx & https://dnr.wisconsin.gov/topic/lakes/cbcw

With the growing concern over the spread of aquatic invasive species to Wisconsin's inland lakes, many lake association members and other concerned citizens are looking for ways to get involved. The **Clean Boats, Clean Waters** watercraft inspection program is an opportunity to take a front-line defense against the spread of aquatic invasive species.

Through the Clean Boats, Clean Waters program, inspectors are trained to organize and conduct a boater education program in their community. Adults and youth teams educate boaters on how and where invasive species are most likely to hitch a ride into waterbodies. Inspectors perform boat and trailer checks for invasive species, distribute informational brochures, and collect and report any new water body infestations.

Understanding Invasive Species

Wisconsin Statute Section 23.22 (1) (c) defines invasive species as "nonindigenous species whose introduction causes or is likely to cause economic or environmental harm or harm to human health." Humans move organisms around all the time. Sometimes when we bring a non-native species into a new area the species will take over and spread rapidly and widely throughout the area. When this happens, the spread can cause major harm to the native ecosystem or humans. When non-native plants, animals or pathogens rapidly take over a new location and alter the ecosystem, we consider them invasive species.

How they become a problem

One of the reasons that invasive species are able to succeed is that they often leave their predators and competitors behind in their native ecosystems. Without these natural checks and balances, they are able to reproduce rapidly and out-compete native species. Invasive species can alter ecological relationships among native species and can affect ecosystem function, the economic value of ecosystems and human health. Humans have created conditions where plants and animals can aggressively invade and dominate natural areas and water bodies in three ways:

- introducing exotic species (from other regions or countries) who lack natural competitors and predators to keep them in check;
- disrupting the delicate balance of native ecosystems by changing environmental conditions - e.g., stream sedimentation, ditching, building roads) or by restricting or eliminating natural processes (fire for example); in such instances, even some native plants and animals can become invasive; and
- spreading invasive species through various methods (see examples at top)
  - moving watercraft from waterbody to waterbody without removing invasive plants and animals;
  - carrying seeds of invasive plants on footwear or pet's fur;
  - mowing along roadsides;
  - importing firewood and leaving in campgrounds;
  - driving and biking with invasive seeds in tire treads.

The net result is a loss of diversity of our native plants and animals as invasive species rapidly multiply and take over. About 42% of the species on the federal Threatened or Endangered species lists are at risk primarily because of invasive species.

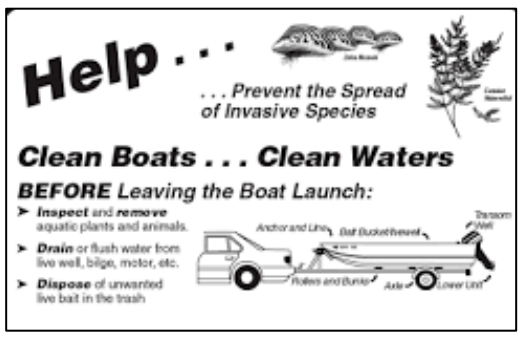
You may have noticed Clean Boats, Clean Waters boat inspectors checking boats at a local boat landing, or maybe you are a volunteer or are interested in learning more. Clean Boats, Clean Waters includes teams of volunteers, as well as paid staff from the DNR, Sea Grant and other organizations. Boat inspectors help perform boat and trailer checks, hand out informational brochures and educate boaters on how to prevent the spread of aquatic invasive species.

The DNR maintains a statewide database, which contains tallies of information tracked at landings. The UW-Extension (UWEX) Lakes conducts trainings for new boat inspectors and coordinates the volunteer efforts. Be sure to visit the UWEX Clean Boats, Clean Waters website above for the handbook, forms, publications, schedule of workshops and general information about Clean Boats, Clean Waters. Graphs and data by county, project and boat landing are available and updated daily.

Transport laws for boaters and anglers

- INSPECT your boat, trailer and equipment
- REMOVE any attached aquatic plants or animals (before launching, after loading and before transporting on a public highway).
- DRAIN all water from boats, motors and all equipment.
- NEVER MOVE live fish away from a waterbody.
- DISPOSE of unwanted bait in the trash.
- BUY minnows from a Wisconsin bait dealer. Use leftover minnows only under certain conditions.*

**You may take leftover minnows away from any state water and use them again on that same water. You may use leftover minnows on other waters only if no lake or river water, or other fish were added to their container*



Bait laws for boaters and anglers

The following new laws apply to all anglers and boaters in Wisconsin

- You must drain all water from boats, containers and fishing equipment when leaving any state waters, banks or shores or entering Wisconsin over land. This does not apply to any drinking water or up to two gallons of water being used to hold minnows that can be legally transported.
- You may not transport any live fish or live fish eggs away from any state waters. There is an exception for minnows obtained from a Wisconsin bait dealer. These minnows may be transported away live and used again:
  - ✓ on the same water, or
  - ✓ on any other waters if no lake or river water, or other fish were added to their container.
- You may not use dead fish, fish eggs, or fish parts as bait. There are three exceptions:
  - ✓ you may use dead fish, fish eggs or fish parts as bait on any waters if they were preserved by a method that does not require freezing or refrigeration, or
  - ✓ you may use unpreserved or just frozen dead fish, fish eggs or fish parts as bait on the water from which they were collected or on Lake Michigan or Green Bay (and connecting waters upstream to the first barrier impassable to fish), or
  - ✓ you may use live minnows that die during a fishing trip during that fishing trip (they may not be used on later trips unless you meet the two conditions above).
- You may not possess or use minnows for bait that are obtained outside of Wisconsin. This does not apply if the minnows were imported under a Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) permit, or if they were obtained from Iowa or Minnesota and are being used only "between the tracks" on the Mississippi River.

Laws for seaplane operators

- INSPECT your seaplane and equipment
- REMOVE any attached aquatic plants or animals (before landing or taking off).
- DRAIN all water from seaplane or equipment.

Laws for landowners, nurseries, and water gardeners

- It's illegal to transport, import, possess, transfer, sell and introduce "Prohibited Species" without a permit
- It's illegal to transport, import, transfer, sell and introduce "Restricted Species" without a permit, but people may possess restricted species with the exception of fish and crayfish.
  - ✓ List of prohibited and restricted plants
  - ✓ List of prohibited and restricted animals, fish and algae

For more information about invasives, prevention, contacts and more, visit the title box websites or also visit https://dnr.wisconsin.gov/topic/Invasives. For questions about CBCW, contact the coordinator for our area, Erin McFarlane, at emcfarla@uwsp.edu or 715-346-4978.

What to Feed Squirrels (and how to Peacefully Co-Exist)

https://www.birdsandblooms.com/gardening/backyard-wildlife/what-to-feed-squirrels/

Keeping squirrels out of your bird feeders or gardens can seem like a losing battle - and it probably is. Urban tree squirrels live and look for food almost everywhere. So instead of waging a war you will not win, perhaps it's time to learn what to feed squirrels, and how to live peacefully alongside the furry creatures.

"Squirrels are among the most commonly observed backyard mammals," says Nichole Bjornlie, a nongame mammal biologist who is based out of Wyoming. "And they can be quite entertaining."

Both Nichole and Tammi Hartung, co-owner of Desert Canyon Farm in Colorado, say you can be a good squirrel host while still preserving your gardens and bird feeders. Here are their hard-earned tips to feed squirrels and ensure a successful squirrel coexistence.

Create a Squirrel Feeder Space

One of the best ways to keep squirrels (and other wild critters) away from your gardens and feeders is to establish a feeding space just for them. Tammi places spoiled apples, corncobs and other unprocessed foods underneath a pear tree. Then instead of raiding all her trees, the hungry mammals tend to stick to one spot.

What to Feed Squirrels: Serve Corncobs

Consider placing corncobs or entire ears of corn on a platform or squirrel feeder. Squirrels will happily spend hours munching on the cobs, which not only keeps them out of your garden but also provides you with endless entertainment. Birds also appreciate the snack.

What to Feed Squirrels: Offer Nuts

The stereotypes are indeed true - squirrels love nuts. They enjoy eating most nuts, but Nichole recommends large varieties. Set out nuts with the shells still on to maximize their benefit for the squirrels (the gnawing keeps their teeth healthy) and the viewing fun for you. Birds love peanuts, too!

Provide Water

Squirrels get thirsty just like other wildlife. "They are notorious for chewing emitters and sprinkler tops," Tammi says. "They can hear the water and can't figure out how to get to it." Her squirrels stopped nibbling when she placed a shallow dish of water about a foot off the ground. The water bowl also serves as a birdbath and place for other wild critters to drink.

Control Pets to Keep Squirrels Safe

Always keep your cats inside and your dogs contained. This benefits both squirrels and other neighborhood wildlife.

Plant Sunflowers for Squirrels

Squirrels love sunflowers and will happily pilfer those seeds instead of your bird feeders or carefully cultivated plants.

Learn About the Squirrels' Habits

Take a cup of coffee or tea outside, sit in a lawn chair and watch your backyard world go by. Soon you'll notice that squirrels take the same paths through your yard. They're creatures of habit, just like us, Tammi says. Once you know where they tend to travel, plant or place food items and water along that path to keep them focused on what you want them to consume. Here's how to make a DIY squirrel feeder.

Wonderful Weeds?

https://www.facebook.com/Marinette-County-Land-Information-Department-1707032496207222/

'Weed' is not a botanical term, as 'weeds' are really wildflowers. We call them weeds because they grow happily even though we don't plant them and often show up in places where we don't want them! Many so-called weeds are just as beautiful as any cultivated plant (which are ones we grow on purpose), as well as being tough, adaptable, and often quite useful.

Above: bumblebee on a dandelion; below, fritillary butterflies nectaring on yarrow

Above: common milkweed; below, butterfly (milk)weed – both are host plants for monarch butterflies and milkweed tussock moths

Above: yellow hawkweed (it can also be orange); below, jewelweed – also called 'spotted touch-me-not' due to the seedpods 'exploding' in late summer if you touch them. This plant can help relieve poison ivy & stinging nettle rash/itch by crushing it and putting it on the rash!

How to Get Rid of Japanese Beetles in the Garden

https://www.almanac.com/pest/japanese-beetles

Japanese beetles *(Popillia japonica)* are iridescent green beetles that carry a big threat because they will feed on a wide variety of plants. You'll often be able to identify the damage because their leaf chewing leaves a lacy skeleton.

What Are Japanese Beetles?

These small insects do not discriminate when it comes to what types of plants they feed on, though they do have favorites (like roses). In fact, they are classified as a pest to hundreds of different species. They are one of the major insect pests in the Eastern and Midwestern United States, causing monumental damage to crops each year.

Prior to the beetle's accidental introduction to the United States in the early 1900s, the Japanese beetle was found only on the islands of Japan, isolated by water and kept in check by its natural predators. In 1912, a law was passed that made it illegal to import plants rooted in soil. Unfortunately, the failure to implement the law immediately allowed the Japanese beetle to arrive in this country.

Most entomologists agree that the beetles entered the country as grubs in soil on Japanese iris roots. In 1916, these coppery-winged pests were first spotted in a nursery near Riverton, New Jersey, and by 1920, eradication programs were dropped; the beetle proved to be too prolific and widespread.

How to Identify Japanese Beetles

Japanese Beetles are ½ inch in length with metallic blue-green heads. They have copper-colored backs, tan wings, and small white hairs lining each side of the abdomen. Japanese beetles usually feed in small groups. Prior to becoming adult beetles in June, they are 1-inch-long, white, c-shaped grubs live in the soil and feed on the roots of many plants. Often, these grubs are a problem in lawns (below).

Once adults, they don't live long but they are voracious. They attack plants in groups, which is why damage is so severe. Although the lifecycle of the adult Japanese beetle is barely 40 days, it can cover a lot of ground. Even if you succeed in controlling your Japanese beetle population, your neighbor's Japanese beetles might come on over.

Signs of Japanese Beetle Damage

Japanese beetles feed on a wide variety of flowers and crops (the adult beetles attack more than 300 different kinds of plants), but in terms of garden plants, they are especially common on roses, as well as beans, grapes, and raspberries. Here's what to look out for:

Skeletonized Leaves and Flowers

Japanese beetles chew leaf tissue from between the veins, leaving a lacy skeleton (picture at left). You'll know right away when you see leaves that are "*skeletonized*" (i.e., only have veins remaining). (Mexican Bean Beetles can also leave foliage skeletonized, though, so be sure to identify the beetle by their appearance as well.)

Japanese beetles are not usually far from damaged leaves, so inspect the plant thoroughly. Also keep an eye on the ground beneath the plant; the beetles may reflexively drop off the plant if disturbed.

Unhealthy, Brown Patches in Lawn

Japanese beetle grubs damage grass when overwintering in the soil, as they feast on the roots of lawn grasses and garden plants. This can cause brown patches of dead or dying grass to form in the lawn, which will pull up easily thanks to the weakened roots.

How to Get Rid of Japanese Beetles

Fortunately, good horticultural practices, including watering and fertilizing, will reduce the impact of the damage caused by these beetles, but often times you simply need to get rid of them. Here are some ideas:

1. Hand Pick: Japanese beetles are easy to see and are fairly easy to knock into a can of soapy water. Yes, it's time consuming, but it's also the most effective way to get rid of these pests. Just be diligent. When you pick them off, put them in a solution of 1 tablespoon of liquid dishwashing detergent and water, which will cause them to drown.

2. Neem Oil: We also deter feeding by adult beetles by spraying plants with Neem oil. Neem oil and sprays containing potassium bicarbonate are somewhat effective, especially on roses. The adult beetles ingest a chemical in the neem oil and pass it on in their eggs, and the resulting larvae die before they become adults. **Note:** *Neem can be harmful to fish and other aquatic life, so don't use it near lakes, rivers, and ponds. It must be reapplied after rain.*

3. Row Covers: Protect your plants from Japanese beetles with row covers during the 6- to 8-week feeding period that begins in mid- to late May in the southern U.S. and in mid- to late June in the North. Row covers will keep the pests out, but they will keep pollinators out, too; be sure to remove them if your crops need to be pollinated.

4. Use a Dropcloth: Put down a dropcloth and, in the early morning when the beetles are most active, shake them off and dump them into a bucket of soapy water.

5. Insecticides: If you wish to spray or dust with insecticides, speak to your local cooperative extension or garden center about approved insecticides in your area. Or, try this **homemade solution**: Mix 1 teaspoon of liquid dishwashing detergent with 1 cup of vegetable oil and shake well; then add it to 1 quart of water. Add 1 cup of rubbing alcohol and shake vigorously to emulsify. Pour this mixture into a spray bottle and use it at ten-day intervals on pests.

Warning: Homemade sprays can run more of a risk of damaging plant leaves, so be careful and use sparingly. It's always a good idea to first test a little bit of your spray on a small part of your plant, wait 24 hours to see if there are any adverse reactions, and - if not - proceed with spraying the rest of the plant.

- Apply sprays in the morning, never in full sun or at temperatures above 90ºF. If your plants start to wilt, rinse the leaves immediately with clean water.

6. Japanese Beetle Traps: Yellow target traps baited with a pheromone attractant work to control large numbers of beetles, but sometimes too well. Don't place one near your garden or you'll be pulling beetles in from all over town. If you want to try them, be sure to place traps far away from target plants so that the beetles do not land on your favored flowers and crops on their way to the traps.

- **Fruit Cocktail Trap:** You can buy Japanese beetle traps of all sorts, but most are no more effective than a can of fruit cocktail. Open the can and let it sit in the sun for a week to ferment. Then place it on top of bricks or wood blocks in a light-colored pail, and fill the pail with water to just below the top of the can. Place the pail about 25 feet from the plants you want to protect. The beetles will head for the sweet bait, fall into the water, and drown. If rain dilutes the bait, start over.

7. Use parasitic nematodes in lawns and garden beds for grub control.

8. Plant geraniums nearby: Japanese beetles are attracted to geraniums. They eat the blossoms, promptly get dizzy from the natural chemicals in the geranium, fall off the plant, and permit you to dispose of them conveniently with a dustpan and brush. Plant geraniums close to more valuable plants which you wish to save from the ravages of Japanese beetles.

9. Nip rose buds and spray rose bushes: Note that insecticides will not fully protect roses, which unfold too fast and are especially attractive to beetles. When beetles are most abundant on roses, nip the buds and spray the bushes to protect the leaves. When the beetles become scarce, let the bushes bloom again. Timeliness and thoroughness of application are very important. Begin treatment as soon as beetles appear, before damage is done.

Continued next page

Biodegradable vs. Compostable: What's the Difference?

https://www.treehugger.com/biodegradable-compostable-difference-5094376

The terms "biodegradable" and "compostable" are everywhere, but they're often used interchangeably, incorrectly, or misleadingly – adding a layer of uncertainty for anyone trying to shop sustainably. In order to make truly planet-friendly choices, it's important to understand what biodegradable and compostable mean, what they *don't* mean, and how they differ.

The term biodegradable refers to any material that can be broken down by microorganisms (like bacteria and fungi) and assimilated into the natural environment. Biodegradation is a naturally occurring process; when an object degrades, its original composition degrades into simple components like biomass, carbon dioxide, water. This process can occur with or without oxygen, but it takes less time when oxygen is present1 — like when a leaf pile in your yard breaks down over the course of a season. Biodegradation can take anywhere from a few days (for vegetable scraps) to 500 or more years (for a plastic bag).

Time for Household Items to Biodegrade

Item	Time to Biodegrade
Vegetables	5 days - 1 month
Paper	2 - 5 months
Cotton T-shirt	6 months
Tree Leaves	1 year
Nylon Fabric	30 - 40 years
Aluminum Cans	80 - 100 years
Styrofoam Cups	500+ years
Plastic Bags	500+ years

How long something takes to biodegrade depends on both the chemical composition of the object and the way that it's stored. Variables like temperature and the presence of water, light, and oxygen affect the speed of degradation. Most landfills have so little light, air, and moisture that the biodegradation process is significantly slowed.

Vegetable peels, eggshells, paper, and garden waste are all straightforwardly biodegradable. When discarded, these items break down in a relatively short period of time, so they can be assimilated into the natural environment. Even some commercial items like coconut coir dish scrubbers fall into this category. In comparison, materials like styrofoam, plastic, and aluminum are typically deemed non-biodegradable because of how long they take to break down.

Figuring out if an object is actually biodegradable can be challenging, especially when you're assessing objects that aren't usually made from biodegradable materials, like cell phone cases or tote bags. The Federal Trade Commission (FTC) and various third-party certifiers have taken steps to monitor the labeling of products as biodegradable. So, if you're trying to determine whether something is biodegradable, check the packaging and don't hesitate to contact the company to ask questions.

That said, most "biodegradable" consumer products won't actually assimilate into the earth through natural biodegradation. In order to biodegrade, they need a specific set of conditions created through the process of composting.

Definition of Compostable

The term compostable refers to a product or material that can biodegrade under specific, human-driven circumstances. Unlike biodegradation, which is an entirely natural process, composting requires human intervention.

During composting, microorganisms break down organic matter with the help of humans, who contribute the water, oxygen, and organic matter necessary to optimize conditions. The composting process generally takes between a few months and one to three years. The timing is impacted by variables like oxygen, water, light, and the type of composting environment. There are two major types of composting:

Residential composting - Residential composting involves collecting food scraps in a bin or heap, combining them with yard waste, and periodically turning the mixture over to promote its breakdown into more basic organic matter. For that reason, you won't be able to break down things like meat, cheese, and fish in a residential bin — there simply won't be enough heat produced.

Continued next page

Beetles, continued from page 6

How to Prevent Japanese Beetles

Unfortunately, there is no magic potion to get rid of this pest. For general preventive maintenance, experts recommend keeping your landscape healthy. Remove diseased and poorly nourished trees as well as any prematurely ripening or diseased fruits, which can attract Japanese beetles. Try these tips:

- **Choose the Right Plants:** Select plants that Japanese beetles will not be attracted to. See our list of the Best and Worst Plants for Japanese Beetles. Dispersing their favorite plants throughout the landscape, rather than grouping them together, can also help.
- **Get Rid of Grubs:** In the grub stage of late spring and fall (beetles have two life cycles per season), spray the lawn with 2 tablespoons of liquid dishwashing soap diluted in 1 gallon of water per 1,000 square feet. The grubs will surface and the birds will love you. Spray once each week until no more grubs surface.
- **Milky Spore:** You can introduce the fungal disease milky spore into your lawn to control the Japanese beetle larvae population. The grubs ingest the spores as they feed in the soil. The spore count must be up for two to three years for this method to be effective. Fortunately, the spores remain viable in the soil for years. This is an expensive treatment, as all the soil within five-eights of a mile needs to be treated for good control.
- **Beneficial Nematodes:** You can also drench sod with parasitic nematodes to control the larvae. The nematodes must be applied when the grubs are small and if the lawn is irrigated before and after application. Preparations containing the *Heterorhabditis* species seem to be most effective.
- **Plant Strategically:** Companion planting can be a useful strategy in preventing pests. Try planting garlic, rue, or tansy near your affected plants to deter Japanese beetles.
- **Parasitic Wasps:** You can also attract native species of parasitic wasps (*Tiphia vernalis* or *T. popilliavora*) and flies to your garden, as they are predators of the beetles and can be beneficial insects. They will probably attack the larvae, but they are not very effective in reducing the overall beetle population.

WARNING: Many dusts or sprays are highly toxic to honeybees, native bees, and other pollinators. If application of these materials to plants is necessary during the bloom period, do not apply during hours when bees are visiting the flowers (late morning through mid-day). If more than just a few yard and garden plantings are to be treated, you may need to contact nearby beekeepers in advance so that they can protect their colonies.

Composting, continued

Commercial composting - Commercial composting involves screening and sorting materials into organics and inorganics, breaking them down with chippers and grinders, and creating optimal moisture, temperature, and oxygen conditions. As a result, commercial composters are able to break down more complex products than at-home composters.

If you're considering purchasing a product that claims to be compostable, make sure to read the label. As with biodegradable items, labeling of compostable materials is regulated by the FTC and third-party certifiers. You'll want to find out whether the product can be composted in a backyard bin or will require commercial composting. Not all cities offer commercial composting, and you don't want to choose a compostable product only to find out that you can't actually compost it.

If you've recently shopped for a phone case, travel mug, or reusable grocery bag, you may have encountered biodegradable and compostable plastic, also known as bioplastic. Many restaurants are even transitioning to bioplastics for takeout containers, utensils, and cups. These items are typically made from materials like corn starch, cellulose, and soy. When properly composted, they break down into non-toxic carbon dioxide, biomass, and water. However, just because a plastic is biodegradable or compostable doesn't mean it will break down under any and all conditions, or that it's truly eco-friendly. Consider the pros and cons of compostable plastics before making your next purchase.

Pros of Biodegradable and Compostable Plastics

- Unlike conventional, petroleum-based plastic, bioplastics are plant-based.
- Bioplastic manufacturing may have a lower carbon footprint than traditional plastics (but there are a lot of variables and uncertainties).

Cons of Biodegradable and Compostable Plastics

- Breaking down bioplastics requires intense heat only available at industrial composting facilities. In an at-home compost heap (or in a landfill), they take a long time to break down.
- Bioplastics do not address the issue of marine plastics, as they do not biodegrade quickly in marine conditions.
- Bioplastics cannot be commingled with recyclable plastics; they must be recycled in separate streams.

Choosing Biodegradable vs. Compostable Products

If you're trying to reduce your environmental impact, compostable items are a good option. Composting an item means it won't end up in a landfill, and if you compost at home, you can use that organic matter to help your (or your neighbor's) garden grow. In addition, the labeling of compostable goods is often more straightforward, so you can be sure you're choosing an eco-friendlier product.

That said, compostable products require certain conditions to break down, so it's important to commit to actually composting those items, rather than sending them to a landfill. Also, if an item is identified as commercially compostable, make sure you have access to a facility that can handle the waste. Bioplastics are in some ways an improvement over conventional plastics, but they can still have a negative impact on the environment if they're disposed of improperly. As always, the best option is to reduce your consumption, reuse what you already have, and avoid single-use products as much as possible.

For more resources about this topic and related topics, visit:

- https://www.treehugger.com/best-biodegradable-trash-bags-5097468
- https://www.treehugger.com/do-compostable-bags-really-work-4863967
- https://www.epa.gov/trash-free-waters/frequently-asked-questions-about-plastic-recycling-and-composting
- https://www.smithsonianmag.com/smart-news/biodegradable-plastic-has-composting-enzymes-built-180977577/
- https://news.berkeley.edu/2021/04/21/new-process-makes-biodegradable-plastics-truly-compostable/

- https://www.compostconnect.org/biodegradable-vs-compostable-packaging/

- https://www.eea.europa.eu/publications/biodegradable-and-compostable-plastics

Bipartisan Bill Addressing Pollution on Working Lands and Economic Support to Landowners Passes Senate

www.audubon.org/news/bipartisan-bill-addressing-pollution-working-lands-and-economic-support

The Growing Climate Solutions Act (GCSA) was passed by the Senate in late June 2021. The bill creates a new program to self-certify technical assistance providers and third-party verifiers for the agriculture and forestry sectors for voluntary actions ***that are intended to reduce the amount of air and carbon pollution and for processes to naturally store carbon.*** The legislation seeks to address barriers to entry for landowners trying to access voluntary carbon markets, and encourages practices guided by science, while also refining protocols that account for additionality, permanence, and potential leakage.

"The Growing Climate Solutions Act recognizes the critical role that our working lands play in storing carbon and helping slow the effects of climate change," said Melinda Cep, vice president of natural solutions and working lands at the National Audubon Society. "While agriculture and forestry represent only a portion of the much larger fight against climate change, landowners are an important part of the solution."

The bill directs the U.S. Department of Agriculture to publish a list of the protocols for voluntary environmental markets. These markets have the potential to further support farmers, ranchers, and private forest landowners in adopting sustainable management practices like planting cover crops, prescribed grazing, and reforestation. In addition to improving the health of working lands, these practices serve as natural solutions for reducing greenhouse gas pollution and increasing the amount of carbon stored in the soil. These important steps will improve transparency of voluntary carbon markets, but significant action is needed to completely eliminate carbon pollution and ensure that all communities can enjoy clean and healthy air.

Audubon has previously supported state-level efforts to use natural climate solutions to reduce emissions in Texas and South Carolina, and helped secure the passage of legislation in Washington state to use farms and fields to capture carbon. Healthy fields and forests are natural solutions to climate change, while providing vital bird habitat that also benefits rural communities. Additionally, Audubon's Conservation Ranching Initiative offers certification for beef and bison products that are raised on sustainable grasslands.

Northern Bobwhite

A 2019 Audubon report found that two-thirds of North America's birds will be vulnerable to extinction if global temperature rise is allowed to continue at current levels. The study found that climate threats faced by birds and their habitats have implications for people as well. Reducing emissions is key to holding off the worst effects of climate change.

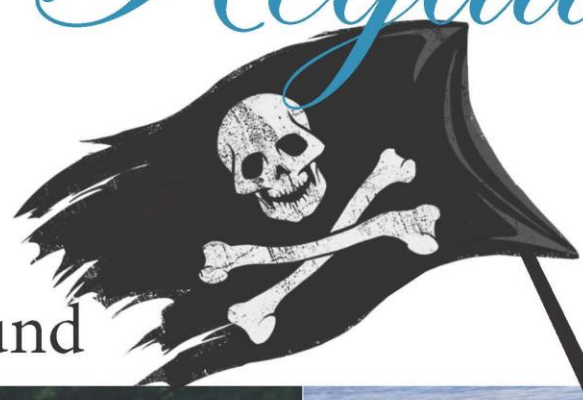
CAMPERS CORNER

Marinette County Parks

THANK YOU FOR PARTICIPATING!

Cardboard Boat Regatta

By only using cardboard, duct tape and water based paints... these participants created their best racing boat!! This was a first year event and we are already looking forward to next year!



July 24, 2021*

at Twin Bridge Park & Campground

Please join us next year! Keep your eyes peeled for the date!

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Contact the Parks office at 715-732-7531 or visit
www.marinettecounty.com/departments/parks/general-information/campgrounds-and-parks/

Summertime Spiders! 8-Legged Yard & Garden Inhabitants

https://www.facebook.com/Marinette-County-Land-Information-Department-1707032496207222/ and https://hort.extension.wisc.edu/articles/garden-spiders/

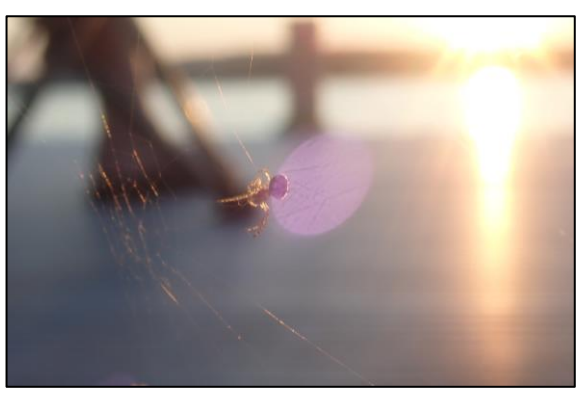
As you are out checking for blackberries and raspberries, you may notice curled leaves – in summertime, you will most likely find that the architects of these bent leaves are often **spiders**. As they grow through the warm season, spiders molt. When reaching their final change of attire, they are mature and ready to reproduce. Females lay eggs, usually in a sac made by their silken threads.

Once placed in such a nest of bent leaves, some spiders will stand by to guard the developing eggs. Sometimes even the mother is hiding with the eggs. They will use the leaves of milkweed, dogbanes, goldenrods, and raspberries. Once the eggs and leaves are secure, she will wait well after the eggs hatch and the young spiders, known as *spiderlings*, fill the inside. This doesn't last long as the young will soon begin to attack each other so in order to survive, they must leave home. But with plenty of warm weather still to come this season, they will be able to grow before fall.

Common yellow & black garden spider, or Argiope

Anyone who gardens has undoubtedly encountered spiders at one time or another. Spiders are arthropods belonging to the order *Araneae* in the class *Arachnida*. “Arachnid” comes from Greek mythology. The princess Arachne challenged the goddess Athene to a weaving contest. When Arachne lost, she was turned into a spider and destined to weave forever. There are more than 35,000 named species of spiders in the world, with 3,000 of them making their home in North America.

Spiders differ from insects in that spiders have 8 legs, not 6; they also have only 2 body regions (a cephalothorax and abdomen) instead of 3 (head, thorax, abdomen); and they lack wings and antennae, both of which insects possess. Finally, spiders possess unique organs beneath their abdomen called spinnerets. These 6 spinnerets allow the spider to produce silk throughout their entire life while only a few insects can produce silk, and then only during specific life stages.



Spiders have unique mouthparts comprised of chelicerae, or jaws, that end in fangs. Although most spiders are venomous, they are harmless to humans with a few exceptions - the black widow and the brown recluse being the most common. The venom produced by spiders is used to paralyze and kill their prey. Spiders rarely attack humans unless provoked and even then they are more likely to flee than fight. People often mistakenly blame spiders for bites caused by fleas, ticks, or mites. Most spiders don’t possess mouthparts capable of breaking human skin.

Most spiders complete a single generation in one year. However, there are a few species that may live for several years. A typical spider’s life cycle begins when egg masses are laid in debris in the fall (see picture at top left). These eggs may overwinter as is or the individual eggs within may hatch into spiderlings that remain protected in the egg mass until spring. After laying an egg mass, the female spider dies. In the spring, spiderlings move from their overwintering site by crawling or *ballooning*, a process by which they produce a silken thread on which they are carried by the wind.

Spiders feed on a wide variety of insects and are therefore considered beneficial in the garden when they eat pests including aphids, caterpillars, cucumber beetles, flies, grasshoppers, leafhoppers, plant bugs, and thrips. However, most spiders are opportunistic and eat whatever they catch, rather than targeting specific pests, and may capture beneficial insects such as bees or tachinid flies.

Goldenrod Crab spider with bumblebee

Because of their generally beneficial nature, garden spiders should be conserved. Avoid the use of broad-spectrum insecticides or insecticides containing pyrethrum or synthetic pyrethroids. Other practices that can help spiders include leaving a portion of the garden covered in organic mulch or planting a cover crop to provide an overwintering site for egg masses.

Spiders capture their prey in three main ways. The largest group constructs a web of some sort to capture their prey. These web spinners typically are found on or near their webs, lying in wait for their unsuspecting prey. They are typically more delicate in nature than their wandering relatives.

A Shamrock Orbweaver spider sitting in its web waiting for prey

If you’ve ever watched a spider spin a web you were likely impressed by its skill and adeptness. To begin construction, a spider sends a single thread out into the breeze until it catches onto something. Next the spider tightens this thread and attaches the originating end to some structure. It then reinforces the original line before dropping down to begin the creation of the first cross-thread. The “Y” shape that results comprises the central hub of the web from which threads are attached to form the radii that make up the web. Spiders are likely some of the best physicists around - capable of determining the exact distance, angle, and tension necessary to construct the perfect trap for their prey.

A regular, orb-type web, a spider in its funnel web, and a more random sheet web

The next most common method is that of the hunting spiders. They are robust and mobile, and do not wait for a meal to come to them but actively track down their prey. Although they do not construct a web to capture their prey, they may construct a silken refuge.

The last group are the ambush hunters, who sit motionless until their prey comes within easy grasp and then pounce.

Some of the most common spiders found in the garden in Wisconsin are argiope or orb weaver spiders, barn spiders, jumping spiders, wolf spiders, and crab spiders. **Argiope** (rhymes with calliope) spiders belong to the family Araneidae. The name “argiope” is typically associated with the black & yellow garden spider. They are commonly seen in gardens and fields on shrubbery and tall flowers in late summer and fall. They are moderate to large in size with an unusually large, and often oddly-shaped abdomen, and may be brightly colored. Their webs are particularly large, up to 1 foot in diameter and are characterized by the white zig-zag band of silk that runs down the center of the web. Argiope spiders often wait in their web for their prey to come stumbling or flying in.

Another member of the Araneid family is the **barn spider**. Barn spiders are relatively large web spinners reaching up to 1 inch in size at maturity and are brownish in color. They spin their webs in shaded areas around buildings, caves, or cliffs. The genus *Araneus* contains a large number of species that look like marbles - some of which are orange or cream-colored.

Grass spiders are moderately-sized, brownish-grey weavers of funnel-shaped webs. Their webs can often be found around building foundations, on low-growing shrubs, or in lawns. The grass spiders themselves lay in the funnel. A unique characteristic of the webs woven by grass spiders is that the threads are not sticky as they are in the case

Continued next page

Wisconsin Department of Natural Resources News – Operation Deer Watch & Monitoring Bird Mortalities on East Coast

Join Wisconsin's Operation Deer Watch!

https://dnr.wisconsin.gov/topic/WildlifeHabitat/summerdeer.html

The Wisconsin Department of Natural Resources will launch Operation Deer Watch tomorrow (Sunday). The watch allows citizen scientists around the state to report deer sightings in their area, which provides crucial data for deer management. Participation in Operation Deer Watch requires no registration and can be done using a computer or mobile device.

DNR researchers ask those interested to report deer sightings, including bucks, does, and fawns between tomorrow and September 30th via an online form. Data collected provides insights into the reproductive status of Wisconsin's deer herd and helps shape deer management for the state. County Deer Advisory Councils also use the data from the survey to develop deer season framework, harvest quotas, and permit level recommendations.

DNR Wildlife Population and Harveys Assessment Specialist Brian Dhuey says this is a fun and useful opportunity for everyone to enjoy Wisconsin's plentiful wildlife. For more information, contact Brian Dhuey, Wildlife Population/Harvest Assessment Specialist, Wildlife Management, 1-608-221-6342.

WDNR Asks the Public to Keep an Eye out for Sick Birds

https://dnr.wisconsin.gov/newsroom/release/46521

The Wisconsin Department of Natural Resources is actively following incidents of bird mortalities first reported in the eastern United States in late May. At that time, wildlife managers in Washington, D.C., Maryland, Virginia, West Virginia and Kentucky began receiving reports of sick and dying birds with eye swelling and crusty discharge, as well as neurological signs. The illness affecting birds in the eastern U.S. has not yet been identified, and it has not been linked to bird mortalities in Wisconsin. Out of precaution, the DNR asks the public to report sick or dead birds with clinical signs and to follow best practices for bird feeder and bird bath hygiene.

The department continually monitors reports of sick and dead wildlife and has received a few scattered reports of birds in Wisconsin with swollen, crusty eyes. These reports may be associated with several causes and may not be associated with the illness reported in eastern states. Symptoms of concern include crusty or swollen eyes as well as seizures and lack of coordination. If you observe a songbird with any of these symptoms, report it to your local wildlife biologist.

"Several wildlife laboratories, including the National Wildlife Health Center in Madison, are working to identify the cause or causes of these cases," said DNR Wildlife Veterinarian Lindsey Long. "These symptoms can be from multiple causes, so these groups have been conducting expansive testing. As part of our continued monitoring of wildlife health, we ask Wisconsinites to report birds with swollen or scabbing eyes so that we may investigate further. Sometimes, we may ask to collect these birds for testing."

Cases have been identified in Washington, D. C., Virginia, West Virginia, Kentucky, Ohio, Indiana, Maryland, Delaware, New Jersey and Pennsylvania. Juvenile or fledgling blue jays, common grackles, European starlings and American robins have predominately been associated with the eastern U.S. event.

Anyone who observes sick or dead birds at their bird feeders or bird baths should remove their feeders. If you have not seen sick or dead birds at your feeders or baths, take care to clean and disinfect them regularly with soap and water, followed by a rinse in 10% bleach solution. It is always good practice to wear gloves while working with and around bird feeders. Pets should be kept away from the area below the feeders and away from any sick or dead birds. For the most up-to-date information on Wisconsin birds, click here. For a statement on this event from the National Wildlife Health Center and its collaborating partners, visit the USGS website.

Spiders, continued

A barn spider hangs upside down on nearly invisible threads of its web under a buildings eaves.

of barn and argiope spiders, so the funnels are just to direct the prey to the spider instead of entangling it.

The **wolf spider** is one of the hunting spiders that actively pursues its prey. They are large, brown or grey with white markings, and hairy, resembling small tarantulas. Wolf spiders belong to the family *Lycosidae* which is derived from the Greek word "lycosa" that means "wolf." They are ground-dwellers that are active by day or night in a wide range of habitats. Many species burrow into the ground or beneath rocks to wait for their unsuspecting prey.

Crab spiders get their name because their first four legs are larger than the hind legs and because of their capability of walking forward, backward, or sideways. Unlike the wolf spider, crab spiders don't actively pursue their prey but rather ambush them as they go walking by. Many species of crab spiders will sit on flowers, hidden in the petals, waiting for victims to fly in.

Jumping spiders belong to the family *Salticidae*, which means "to leap." They may be found indoors as well as out. These nimble acrobats can jump more than 40 times their body length. Because of their highly mobile life style, jumping spiders have the best vision of all spiders. They are medium-sized and compact. They can be drab or brightly colored and are easily identified by their jerky movements.

The closely related daddy long legs, harvestmen or harvest-spiders are not true spiders (arachnids in the order Opiliones, not Araneae) - they have no silk glands and therefore can't make webs. Most have legs that are really long relative to the size of the body. Unlike spiders, they are not exclusively predators but most are omnivorous or scavengers.

The next time you're in the garden, look around and see how many different kinds of spiders you can find. Also, keep in mind some of the gardening practices you can do to benefit spiders who in turn will repay you by helping keep some pest insects under control.

- https://spiderid.com/locations/united-states/wisconsin/
- https://insectid.wisc.edu/wp-content/uploads/sites/267/2014/03/Common-Spiders-Around-Homes-Factsheet.pdf

DNR Kicks Off Water Quality Month with Safe Water for All Campaign; Announces Panel Series - Agency Working with DHS And Other Partners to Make Sure Our Water Is Safe Now and For Future Generations

https://dnr.wisconsin.gov/topic/DrinkingWater/SafeWaterForAll.html

Ahead of National Water Quality Month this August, the Wisconsin Department of Natural Resources (DNR) today announced the department is launching the Safe Water For All Campaign to spotlight the need for Wisconsinites to have safe, clean drinking water.

"Our state and our economy depend on having access to safe, clean water, from our homes and our schools to our farmers to our outdoor recreation industry, and we've been working to address water contamination and protect the health of folks across our state since the beginning of my administration," said Gov. Tony Evers. "I'm incredibly proud of the work we're doing to offer real solutions to improve water quality for every Wisconsinite, but we also can't do it alone – we need the Legislature to give this issue their urgent attention and action."

Gov. Evers declared 2019 the Year of Clean Drinking Water to address the fact Wisconsinites do not have access to safe, clean drinking water. From emerging contaminants to ongoing issues concerning lead, runoff and other classic pollutants, working toward clean drinking water carries on the Wisconsin way – forward.

"Water is an essential and precious resource. Tens of thousands of people today cannot drink the water that comes out of their tap. No one should ever be afraid to turn on their tap," said DNR Secretary Preston D. Cole. "Today we are launching a new educational effort to amplify the importance of safe drinking water for all. This effort will let the public know where they can go to learn about the safety of their water, what the DNR is doing to protect their health and the solutions we could implement today to ensure clean water for all."

Today, the work continues. In addition to declaring 2019 the Year of Clean Drinking Water, Gov. Evers directed the DNR and the Department of Health Services, the agencies entrusted with protecting Wisconsin's health and water resources, to strengthen water quality standards for nitrate, PFAS and lead. Learn more about how the State of Wisconsin is protecting our drinking water here.

"Access to safe drinking water is a critical component of healthy environments for people to live, work, and play in. Here in Wisconsin, we are lucky to have water resources, but we are confronted with a range of water quality concerns – some naturally occurring and some due to human practices," said DHS Secretary-designee Karen Timberlake. "All of us at DHS stand committed to ensuring access to safe drinking water." The Safe Water For All Campaign is focused on educating the public on the leading drinking water contaminants, including PFAS, nitrates and lead, and their impact on your health. The public is encouraged to participate in an upcoming panel series to stay informed and learn steps you can take to keep safe.

Safe Water for All Panel Series

Sowing The Seeds for Safe Water

Water gives us life and grows our food. Yet today, many of those who grow our food can't drink their water. Learn how farmers and agriculture business leaders are using science to advance innovative solutions for safe water. Hear new ideas for policies, technologies and practices that protect water and strengthen the economy.

Threats On Tap: Marginalized Communities at Risk

While the Safe Drinking Water Act guarantees all Wisconsinites access to clean, drinkable water, not everyone can safely turn on the tap. The United States has remarkable water systems, developed over two centuries of technological, institutional and economic advances. However, the benefits of those systems have not been equally felt across the state. Water systems that serve marginalized areas – communities of color, low-income communities and rural communities – are more likely to be unsafe. Hear about the efforts to understand and to secure safe and affordable drinking water for every community.

Protecting the People: Safe Drinking Water for All

Wisconsin has a long history of protecting the state's waters and even led the nation in drinking water protection with the passage of the 1983 groundwater law. Approximately two thirds of people living in Wisconsin get their drinking water from groundwater. Adequate supplies of uncontaminated groundwater are crucial not only for our health but also for our breweries, agricultural operations and cutting-edge industries in Wisconsin. Hear how Wisconsin is working to protect your health and what you can do to get involved.

More Summer Fun with T.O.A.D. Programs!

Above - at the Harmony Arboretum, Crivitz Homeschoolers learn about insects and the importance of pollinators; below, a group from Hannahville (visiting the Peshtigo area for the day) learns about burrowing animals that utilize underground habitats.

T.O.A.D. – Teaching Outdoor Awareness & Discovery – environmental education programs are available to all groups and organizations that have an interest in learning about the natural environment. There are learning opportunities for school/youth groups, day care facilities, church groups, clubs, lake associations, etc. and for people of all ages.

Our T.O.A.D program provides environmental and conservation topics in the classroom and extends classroom learning into the outdoors. We provide field equipment and knowledgeable staff to present lessons to groups **free of charge** within Marinette County.

Above – Crivitz Youth, Inc. kids search for aquatic critters in the Peshtigo River; below, McKenzie and Austin - Land Information Department staff - help YMCA summer campers search for bugs in the YMCA gardens.

For more about the T.O.A.D. program, visit www.marinettecounty.com/departments/land-information/environmental-education/toad/, or contact Anne Bartels, Information & Education Specialist - Land Information Department - abartels@marinettecounty.com or 715-732-7784.

The Ultimate Guide to Growing Milkweed for Monarch Butterflies

https://www.birdsandblooms.com/gardening/gardening-basics/milkweed-guide/

Why Grow Milkweed Plants?

Monarch butterflies are rapidly declining due to loss of habitat and use of pesticides. Planting milkweed is the most effective way to help because it is the only plant that sustains a monarch through each of its life stages. It also produces a chemical that makes monarchs toxic and bitter-tasting to some of their predators.

"The bottom line is, if milkweed disappears, so will monarchs," says Laura Lukens, who works as a national monitoring coordinator for the Monarch Joint Venture, a partnership of American federal, state and other organizations. "Home gardeners have a huge role to play in providing habitat for monarchs, pollinators and other wildlife. Residential properties have the potential to contribute many thousands — maybe even millions — of acres of habitat."

What is Milkweed?

Milkweed, scientifically called *Asclepias*, is a huge genus, with 73 species native to the United States and more than 100 species across North America. It's the only plant that hosts monarch caterpillars. Common milkweed has a wide native range, but it might not be the best choice.

Which Kind of Milkweed Should You Grow?

Select milkweeds native to your region. Common names vary wildly, so use botanical names when you're researching. Since milkweed species have varying needs for sun, water and space, pay extra attention to growing requirements.

It's helpful to have a diverse selection of native milkweed and flowering plants, but avoid tropical milkweed (*A. curassavica*). Although it's easy to grow, tropical types host a parasite that infects and harms monarchs. It may encourage monarchs to stop short of their full migration and increases the risk of parasitic transmission. Check with native plant specialists to learn how to minimize problems year-round, such as cutting plants back to a few inches tall in fall and winter.

Best Milkweed Plants for Your Region - Monarch Joint Venture recommends these regional milkweed species:

Northeast/Midwest: common (*Asclepias syriaca*); swamp (*A. incarnata*); butterfly weed (*A. tuberosa*); whorled (*A. verticillata*); poke (*A. exaltata*).

Southeast: butterfly weed (*A. tuberosa*); whorled (*A. verticillata*); white (*A. variegata*); aquatic (*A. perennis*); sandhill/pinewoods (*A. humistrata*).

South Central: green antelopehorn (*A. viridis*); antelopehorns (*A. asperula*); zizotes (*A. oenotheroides*).

Western, excluding Arizona and California: Mexican whorled (*A. fascicularis*); showy (*A. speciosa*).

Arizona: butterfly weed (*A. tuberosa*); antelopehorns (*A. asperula*); rush (*A. subulata*); Arizona (*A. angustifolia*).

California: Mexican whorled (*A. fascicularis*); showy (*A. speciosa*); desert (*A. erosa*); California (*A. californica*); heartleaf (*A. cordifolia*); woolly (*A. vestita*); woolly pod (*A. eriocarpa*).

How to Grow Milkweed Plants

The easiest way to grow milkweed is to start with plants instead of seeds, tucking them into the ground after the danger of frost has passed. Starting milkweed from seed is tricky. Most seeds need a period of chilling called vernalization and stratification to germinate and then flower. In cold climates, plant seeds directly into the ground in autumn.

Starting Milkweed Seeds Indoors

If you want to start the plants indoors, place seeds between moist paper towels inside a sealed plastic bag or plant the seeds directly into peat pots covered with a sealed plastic bag. Chill in a refrigerator at least 30 days. Plant cold-treated seeds in a moist seed-starting potting mix. Place the pots under a grow light or near a sunny window. *Warning: Seedlings may take a long time to emerge or not grow at all.*

If the seedlings make it, start to transplant the 2-to-3-inch plants with the intact root ball after the danger of frost has passed. Most milkweeds have long taproots that hate to be disturbed. A seedling may lose its leaves after being transplanted, or it could die. Check out these 5 butterfly nectar plants that can be started from seed.

Where to Plant Milkweed

Some types of milkweed spread more aggressively than others. To contain the plant, grow it in a raised bed or container and remove the pods. Or plant it only where it can run freely. Milkweed does not need to be fertilized. Wear gloves when handling milkweed, because the milky sap may cause skin or eye irritation. In large quantities, the sap may be toxic to livestock or pets.

Will Aphids Hurt My Milkweed Plants?

Milkweed may attract aphids and other insects. "While a high concentration of aphids on your milkweed may look bad, these insects are not necessarily causing harm to monarchs," Laura says. "Unless they are in extremely high density, there are usually not enough to kill the plant." *Also note that other insects, like the milkweed beetle and milkweed tussock moth, utilize the plant for food as well.*

Because chemical pesticides or insecticides also kill monarchs, the best option is to remove the pests by hand, cut off stems with lots of aphids or simply allow nature to take its course.

For more information about monarchs and milkweed, visit:

- https://wiatri.net/Projects/Monarchs/
- https://www.monarchmilkweedhabitat.com/WI
- https://dnr.wi.gov/topic/EndangeredResources/Animals.asp?mode=detail&SpecCode=IILEPP2010
- https://monarchwatch.org/
- https://monarchjointventure.org/
- https://savvygardening.com/monarch-butterfly-host-plant-milkweeds-grow-seed/

Perseid Meteor Showers this Month!

The 2021 Perseid meteor shower will probably produce the greatest number of meteors on the mornings of August 11, 12 and 13. In the early morning hours, when the most meteors will be flying – there'll be no moon to ruin on the show.

2020 Pollinator Garden Project Update – Gardens are Looking Good this Summer!

The Pollinator Invitation Gardens ("P.I.G.") project from last summer is continuing to show success in the over 30 sites that participated. Anne Bartels, Information & Education Specialist for the Land Information Department – Land & Water Conservation Division – has been visiting the sites this summer to do 'check-ups' to see how the plants are faring, and she is happy to say that all are doing well!

These wild bergamots (purple flowers) and other native plants were installed amongst the existing wildflowers to boost pollinator habitat near a vegetable garden.

A few gardens are at public locations – the REC Center in Marinette, UWGB Marinette's back parking lot, and Good Shepherd Lutheran Church in Peshtigo. If you have time, stop by and visit!

This garden in Amberg was installed Sept. 9. 2020, and more plants were added this July, so the plants are still establishing. Next year it will fill out more robustly.

Above, plants installed this year, June 15, around a fire number at a residence; below, the area on July 29th.

Some PIG participants had existing gardens and simply wanted more native plant species to boost pollinator habitat, as in the below photos.

City Utility Box Features Monarch Butterfly Photo

https://www.ehextra.com/news/from-blas-to-beautiful-5-city-utility-boxes-will-receive-a-facelift/article_1f28e846-d5fe-11ea-a906-db9b22e506d2.html

Have you noticed the utility box art around Marinette? The monarch below, across from City Hall on Stephenson Street, was a photo taken by Anne Bartels of the Land Information Department. The city held a photo contest in 2020 for entries, and the wraps are now going up around the city. Other current box wrap locations include Riverside Drive, Hattie Street by Walgreens, and the corner of Main & Wells. Visit the Eagle Herald link above for more information.

ASK A MASTER GARDENER – PRAIRIE WALK

If you've wondered how to turn your useless weed patch into a thing of beauty, join us on **Wednesday, August 18, at 10:00 AM at Harmony Arboretum.** Master Gardener Linda Warren, Education Specialist Anne Bartels, and WildOnes member Adrian Konell will lead a walk through the prairie at Harmony Arboretum followed by a discussion of how to prepare the soil and select the best native plants for your purpose.

There will also be a tour of the Short Grass Prairie in the Harmony Demonstration Gardens. Be sure to wear comfortable shoes. Beginners are welcome. Master Gardeners will be available to answer your gardening questions.

Harmony Arboretum is located 7 miles west of Marinette on Highway 64 and 1/2 mile south on County E. Watch for the sign. Find us on Facebook at Northern Lights Master Gardener Association.